

Supplementary Materials

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Supplementary Figure 1. Measurement of variables across waves

	Pre-wave (wave 6)	Pre-wave (wave 7)	Baseline (wave 8)	Follow-up (wave 9)
Sociodemographic characteristics				
Age	X			
Sex	X			
Ethnicity	X			
Education	X			
Employment	X			
Marital status	X			
Total (non-pension) wealth	X			
Exposures				
Loneliness		X	X	
Isolation		X	X	
General health				
Self-rated health	X		X	X
Number of chronic illnesses	X		X	X
Frequent pain	X		X	X
Functional capacity				
ADLs disability	X		X	X
IADLs disability	X		X	X
Mobility disability	X		X	X
Gait speed	X		X	X
Cognitive function				
Cognitive functional score		X	X	X
Mental wellbeing				
Depressive symptoms	X		X	X
Life satisfaction	X		X	X
Happiness	X		X	X
Quality of life	X		X	X
Health behaviour				
Sleep problems	X		X	X
Sedentary behaviour	X		X	X
Smoking	X		X	X
Alcohol consumption	X		X	X
Leisure engagement	X		X	X

**Supplementary Table 1. Proportion of missingness in covariates and outcomes
(n=4,654)**

		Pre-wave (wave 6)		Baseline (wave 8)		Follow-up (wave 9)	
		n	%	n	%	n	%
Sociodemographic characteristics							
	Age	7	0.2%				
	Sex	0	0.0%				
	Ethnicity	0	0.0%				
	Education	604	13.0%				
	Employment	199	4.3%				
	Marital status	2	0.0%				
	Total (non-pension) wealth	83	1.8%				
General health							
	Self-rated health	16	0.3%	1	0.0%	62	1.3%
	Number of chronic illnesses	1	0.0%	1	0.0%	6	0.1%
	Frequent pain	17	0.4%	4	0.1%	62	1.3%
Functional capacity							0.0%
	ADLs disability	0	0.0%	0	0.0%	0	0.0%
	IADLs disability	0	0.0%	0	0.0%	0	0.0%
	Mobility disability	0	0.0%	0	0.0%	0	0.0%
	Gait speed	1200	25.8%	485	10.4%	429	9.2%
Mental wellbeing							0.0%
	Depressive symptoms	44	0.9%	29	0.6%	97	2.1%
	Life satisfaction	203	4.4%	38	0.8%	298	6.4%
	Happiness	341	7.3%	119	2.6%	437	9.4%
	Quality of life	392	8.4%	242	5.2%	540	11.6%
Health behaviour							0.0%
	Sleep problems	25	0.5%	10	0.2%	72	1.5%
	Sedentary behaviour	0	0.0%	0	0.0%	0	0.0%
	Smoking	0	0.0%	0	0.0%	0	0.0%
	Alcohol consumption	725	15.6%	668	14.4%	275	5.9%
	Leisure engagement	0	0.0%	0	0.0%	0	0.0%
		Pre-wave (wave 7)		Baseline (wave 8)		Follow-up (wave 9)	
Cognitive function	Cognitive functional score	184	4.5%	233	5.7%	350	8.6%

Supplementary Table 2. Longitudinal Associations Between Chronicity of Loneliness and Subsequent Physical and Mental Health in Later Life

		Loneliness					
Outcomes		Transition out of loneliness		Onset of loneliness		Chronic loneliness	
	Coef	Coef [95% CI]	P	Coef [95% CI]	P	Coef [95% CI]	P
General health							
Chronic illnesses	OR	1.29 [0.92-1.81]	0.143	1.08 [0.80-1.46]	0.601	1.59 [1.24-2.04]	<0.001
Chronic pain	OR	1.19 [0.86-1.65]	0.288	1.39 [1.02-1.89]	0.035	1.71 [1.33-2.18]	<0.001
Self-rated health	OR	0.69 [0.49-0.96]	0.028	0.57 [0.41-0.79]	0.001	0.45 [0.34-0.60]	<0.001
Functional capacity							
IADLs disability	OR	1.34 [0.89-2.03]	0.165	1.68 [1.17-2.42]	0.005	1.92 [1.42-2.60]	<0.001
ADLs disability	OR	1.26 [0.81-1.94]	0.307	1.65 [1.17-2.34]	0.004	2.09 [1.61-2.73]	<0.001
Mobility limitations	OR	1.14 [0.80-1.63]	0.472	1.41 [1.02-1.94]	0.036	1.69 [1.29-2.21]	<0.001
Gait speed	β	-0.11 [-0.24-0.02]	0.094	-0.12 [-0.25-0.02]	0.085	-0.14 [-0.24- -0.04]	0.008
Cognitive function							
Cognitive health	β	-0.08 [-0.20-0.04]	0.191	-0.09 [-0.20-0.01]	0.084	-0.05 [-0.14-0.03]	0.227
Mental wellbeing							
Depression	OR	1.78 [1.24-2.54]	0.002	1.98 [1.39-2.84]	<0.001	4.39 [3.36-5.74]	<0.001
Life satisfaction	OR	0.69 [0.48-1.00]	0.051	0.53 [0.37-0.75]	<0.001	0.28 [0.21-0.37]	<0.001
Happiness	OR	0.48 [0.34-0.67]	<0.001	0.46 [0.33-0.64]	<0.001	0.25 [0.19-0.32]	<0.001
Quality of life	β	0.07 [-0.07-0.21]	0.331	-0.09 [-0.22-0.04]	0.163	-0.22 [-0.34- -0.11]	<0.001
Health behaviour							
Sleep problems	OR	1.32 [0.96-1.83]	0.089	1.62 [1.21-2.16]	0.001	1.91 [1.50-2.42]	<0.001
Sedentary behaviour	OR	1.23 [0.86-1.74]	0.252	1.63 [1.16-2.28]	0.005	1.54 [1.16-2.05]	0.003
Smoking	OR	1.23 [0.64-2.37]	0.527	1.08 [0.62-1.88]	0.790	0.87 [0.54-1.38]	0.546
Alcohol consumption	OR	1.07 [0.76-1.51]	0.683	1.11 [0.81-1.50]	0.523	0.78 [0.59-1.03]	0.078
Leisure engagement	β	-0.02 [-0.12-0.08]	0.713	-0.09 [-0.19-0.01]	0.082	-0.03 [-0.11-0.05]	0.465

Note. The reference category was no loneliness. Results were weighted and based on 50 imputed datasets. All models adjusted for age, sex, ethnicity, education, employment, marital status, total net non-pension wealth, and the corresponding pre-baseline outcome measured at wave 6. Models examining cognitive health were adjusted for cognitive scores at wave 7 as potential confounders. Bold text indicates $p < 0.05$. OR: odds ratio from logistic regression model (ordered logistic regression model for alcohol consumption). β : standardized coefficient from linear regression model. All tests were two-sided. No adjustments were made for multiple comparisons.

Supplementary Table 3. Longitudinal Associations Between Chronicity of Isolation and Subsequent Physical and Mental Health in Later Life

		Social isolation					
Outcomes		Transition out of isolation		Onset of isolation		Chronic isolation	
	Coef	Coef [95% CI]	P	Coef [95% CI]	P	Coef [95% CI]	P
General health							
Chronic illnesses	OR	1.05 [0.89-1.25]	0.561	1.19 [0.81-1.74]	0.368	1.16 [0.95-1.43]	0.142
Chronic pain	OR	0.93 [0.78-1.11]	0.434	1.10 [0.77-1.56]	0.607	0.91 [0.74-1.11]	0.340
Self-rated health	OR	1.09 [0.91-1.32]	0.340	0.81 [0.52-1.25]	0.345	1.03 [0.83-1.27]	0.814
Functional capacity							
IADLs disability	OR	0.96 [0.75-1.22]	0.730	1.11 [0.69-1.79]	0.666	1.04 [0.79-1.35]	0.790
ADLs disability	OR	1.04 [0.82-1.31]	0.740	1.32 [0.82-2.12]	0.254	1.11 [0.86-1.44]	0.415
Mobility limitations	OR	0.91 [0.76-1.09]	0.309	1.12 [0.73-1.72]	0.591	0.86 [0.70-1.07]	0.178
Gait speed	β	0.01 [-0.05-0.08]	0.721	0.01 [-0.13-0.15]	0.901	-0.04 [-0.12-0.04]	0.350
Cognitive function							
Cognitive health	β	0.07 [0.01-0.13]	0.029	0.03 [-0.08-0.14]	0.640	0.04 [-0.03-0.11]	0.261
Mental wellbeing							
Depression	OR	0.69 [0.54-0.88]	0.003	1.20 [0.80-1.80]	0.380	0.99 [0.77-1.28]	0.955
Life satisfaction	OR	1.19 [0.94-1.51]	0.142	0.76 [0.49-1.18]	0.218	0.77 [0.60-0.99]	0.043
Happiness	OR	1.39 [1.12-1.73]	0.003	0.79 [0.53-1.18]	0.243	0.94 [0.74-1.19]	0.603
Quality of life	β	0.01 [-0.06-0.07]	0.880	-0.18 [-0.33- -0.03]	0.021	-0.15 [-0.23- -0.06]	0.001
Health behaviour							
Sleep problems	OR	0.89 [0.75-1.06]	0.204	0.99 [0.70-1.42]	0.974	0.92 [0.75-1.12]	0.396
Sedentary behaviour	OR	1.01 [0.81-1.26]	0.910	1.22 [0.79-1.88]	0.376	0.87 [0.68-1.10]	0.241
Smoking	OR	1.08 [0.79-1.46]	0.635	1.51 [0.73-3.13]	0.266	1.21 [0.83-1.77]	0.320
Alcohol consumption	OR	1.00 [0.85-1.17]	0.995	0.96 [0.67-1.38]	0.834	0.87 [0.71-1.08]	0.200

Note. The reference category was no isolation. Results were weighted and based on 50 imputed datasets. All models adjusted for age, sex, ethnicity, education, employment, total net non-pension wealth, and the corresponding pre-baseline outcome measured at wave 6. Models examining cognitive health were adjusted for cognitive scores at wave 7 as potential confounders. Bold text indicates $p < 0.05$. OR: odds ratio from logistic regression model (ordered logistic regression model for alcohol consumption). β : standardized coefficient from linear regression model. All tests were two-sided. No adjustments were made for multiple comparisons.

Supplementary Table 4. Robustness to unmeasured confounding (E-values) for the longitudinal associations between loneliness, social isolation and physical and mental wellbeing

	Effect estimates	Effect estimates
Outcomes	Chronic loneliness	Chronic social isolation
	E (CI)	E (CI)
General health		
Chronic illnesses	2.56 (1.79)	1.59 (1.00)
Chronic pain	2.81 (1.99)	1.43 (1.00)
Self-rated health	3.87 (2.72)	1.21 (1.00)
Functional capacity		
IADLs disability	3.25 (2.19)	1.24 (1.00)
ADLs disability	3.60 (2.60)	1.46 (1.00)
Mobility limitations	2.77 (1.90)	1.60 (1.00)
Gait speed	1.53 (1.22)	1.23 (1.00)
Cognitive function		
Cognitive health	1.28 (1.00)	1.23 (1.00)
Mental wellbeing		
Depression	8.25 (6.18)	1.11 (1.00)
Life satisfaction	6.60 (4.85)	1.92 (1.11)
Happiness	7.46 (5.70)	1.32 (1.00)
Quality of life	1.76 (1.45)	1.54 (1.30)
Health behaviour		
Sleep problems	3.23 (2.37)	1.39 (1.00)
Sedentary behaviour	2.45 (1.59)	1.56 (1.00)
Smoking	1.56 (1.00)	1.71 (1.00)
Alcohol consumption	1.88 (1.00)	1.56 (1.00)
Leisure engagement	1.20 (1.00)	NA

Note. E-values for the longitudinal associations between chronic loneliness, social isolation and physical and mental wellbeing. All models adjusted for age, sex, ethnicity, education, employment, marital status (only included in models for loneliness), total net non-pension wealth, and the corresponding pre-baseline outcome measured at wave 6. Models examining cognitive health were adjusted for cognitive scores at wave 7 as potential confounders. Results were weighted and based on 50 imputed datasets. No adjustments were made for multiple comparisons.

Supplementary Table 5. Unadjusted Models for Longitudinal Associations Between Chronicity of Loneliness and Subsequent Physical and Mental Health in Later Life

		Loneliness					
Outcomes		Transition out of loneliness		Onset of loneliness		Chronic loneliness	
	Coef	Coef [95% CI]	P	Coef [95% CI]	P	Coef [95% CI]	P
General health							
Chronic illnesses	OR	1.58 [1.18-2.12]	0.002	1.33 [1.01-1.76]	0.045	1.99 [1.57-2.53]	<0.001
Chronic pain	OR	1.48 [1.12-1.96]	0.006	1.71 [1.31-2.24]	<0.001	2.33 [1.87-2.91]	<0.001
Self-rated health	OR	0.54 [0.40-0.73]	<0.001	0.43 [0.32-0.59]	<0.001	0.33 [0.25-0.42]	<0.001
Functional capacity							
IADLs disability	OR	1.63 [1.17-2.26]	0.004	2.12 [1.57-2.86]	<0.001	2.64 [2.08-3.37]	<0.001
ADLs disability	OR	1.50 [1.06-2.12]	0.020	1.97 [1.45-2.68]	<0.001	2.77 [2.17-3.52]	<0.001
Mobility limitations	OR	1.44 [1.09-1.92]	0.011	1.68 [1.28-2.21]	<0.001	2.31 [1.84-2.91]	<0.001
Gait speed	β	-0.24 [-0.40- -0.08]	0.003	-0.27 [-0.42- -0.11]	0.001	-0.33 [-0.46- -0.20]	<0.001
Cognitive function							
Cognitive health	β	-0.21 [-0.38- -0.04]	0.015	-0.20 [-0.35- -0.05]	0.010	-0.23 [-0.34- -0.12]	<0.001
Mental wellbeing							
Depression	OR	2.59 [1.88-3.58]	<0.001	2.78 [2.04-3.80]	<0.001	7.84 [6.20-9.91]	<0.001
Life satisfaction	OR	0.43 [0.31-0.61]	<0.001	0.39 [0.28-0.53]	<0.001	0.15 [0.12-0.19]	<0.001
Happiness	OR	0.36 [0.26-0.50]	<0.001	0.37 [0.27-0.50]	<0.001	0.16 [0.13-0.20]	<0.001
Quality of life	β	-0.16 [-0.32- -0.01]	0.036	-0.32 [-0.46- -0.18]	<0.001	-0.69 [-0.81- -0.56]	<0.001
Health behaviour							
Sleep problems	OR	1.60 [1.21-2.13]	0.001	2.04 [1.55-2.67]	<0.001	2.68 [2.15-3.33]	<0.001
Sedentary behaviour	OR	1.35 [0.98-1.87]	0.066	1.79 [1.34-2.40]	<0.001	1.87 [1.48-2.36]	<0.001
Smoking	OR	1.14 [0.86-1.51]	0.372	1.08 [0.83-1.41]	0.566	1.16 [0.94-1.45]	0.171
Alcohol consumption	β	0.75 [0.58-0.97]	0.027	0.88 [0.68-1.14]	0.342	0.55 [0.44-0.69]	<0.001
Leisure engagement	OR	-0.19 [-0.33- -0.05]	0.006	-0.27 [-0.39- -0.14]	<0.001	-0.25 [-0.35- -0.15]	<0.001

Note. The reference category was no loneliness. Results were weighted and based on 50 imputed datasets. Bold text indicates $p < 0.05$. OR: odds ratio from logistic regression model (ordered logistic regression model for alcohol consumption). β : standardized coefficient from linear regression model. All tests were two-sided. No adjustments were made for multiple comparisons.

Supplementary Table 6. Unadjusted Models for Longitudinal Associations Between Chronicity of Isolation and Subsequent Physical and Mental Health in Later Life

		Social isolation					
Outcomes		Transition out of isolation		Onset of isolation		Chronic isolation	
	Coef	Coef [95% CI]	P	Coef [95% CI]	P	Coef [95% CI]	P
General health							
Chronic illnesses	OR	1.05 [0.90-1.22]	0.551	1.34 [0.95-1.88]	0.092	1.48 [1.24-1.76]	<0.001
Chronic pain	OR	1.01 [0.86-1.17]	0.946	1.10 [0.79-1.52]	0.585	1.20 [1.01-1.42]	0.042
Self-rated health	OR	0.92 [0.79-1.07]	0.281	0.64 [0.46-0.91]	0.013	0.64 [0.54-0.76]	<0.001
Functional capacity							
IADLs disability	OR	1.35 [1.10-1.67]	0.004	1.52 [1.02-2.25]	0.039	1.93 [1.55-2.40]	<0.001
ADLs disability	OR	1.28 [1.04-1.58]	0.019	1.57 [1.04-2.37]	0.032	1.78 [1.42-2.22]	<0.001
Mobility limitations	OR	1.15 [0.99-1.34]	0.069	1.26 [0.91-1.75]	0.164	1.44 [1.21-1.71]	<0.001
Gait speed	β	-0.14 [-0.22- -0.06]	<0.001	-0.12 [-0.29- 0.04]	0.150	-0.35 [-0.44- -0.25]	<0.001
Cognitive function							
Cognitive health	β	-0.10 [-0.18- -0.02]	0.011	-0.19 [-0.35- -0.02]	0.024	-0.25 [-0.34- -0.16]	<0.001
Mental wellbeing							
Depression	OR	0.94 [0.76-1.17]	0.579	1.67 [1.14-2.45]	0.009	1.88 [1.51-2.33]	<0.001
Life satisfaction	OR	1.03 [0.83-1.28]	0.761	0.55 [0.37-0.82]	0.003	0.49 [0.39-0.60]	<0.001
Happiness	OR	1.23 [1.01-1.50]	0.044	0.63 [0.43-0.92]	0.016	0.61 [0.50-0.75]	<0.001
Quality of life	β	-0.07 [-0.15-0.004]	0.062	-0.41 [-0.59- -0.24]	<0.001	-0.45 [-0.55- -0.36]	<0.001
Health behaviour							
Sleep problems	OR	0.97 [0.83-1.13]	0.677	1.10 [0.79-1.52]	0.578	1.13 [0.95-1.35]	0.165
Sedentary behaviour	OR	1.52 [1.25-1.83]	<0.001	1.59 [1.07-2.37]	0.023	1.80 [1.46-2.21]	<0.001
Smoking	OR	0.90 [0.78-1.06]	0.204	0.99 [0.72-1.37]	0.960	1.02 [0.86-1.21]	0.855
Alcohol consumption	β	0.86 [0.75-0.99]	0.034	0.74 [0.55-1.00]	0.052	0.56 [0.47-0.67]	<0.001

Note. The reference category was no isolation. Results were weighted and based on 50 imputed datasets. Bold text indicates $p < 0.05$. OR: odds ratio from logistic regression model (ordered logistic regression model for alcohol consumption). β : standardized coefficient from linear regression model. All tests were two-sided. No adjustments were made for multiple comparisons.

Concurrent Associations

Concurrently, chronic loneliness was associated with higher odds of chronic illness, chronic pain, IADLs/ADLs or mobility disability, depression, sleep problems and sedentary behaviour, with lower likelihoods of better self-rated health, life satisfaction and QoL, happiness, engagement and faster gait speed than those not lonely (Supplementary Table 7). Compared with no loneliness, Individuals with the onset of loneliness had increased odds of chronic pain, IADL disability, mobility limitations, depression, sedentary behaviour and experiencing sleep disturbances, and were concurrently associated with decreased likelihoods of good self-rated health, happiness, life satisfaction and QoL. These mental health-related associations were generally consistent for transitioning out of loneliness. Compared with no isolation, chronic isolation was associated with a lower likelihood of better life satisfaction and QoL (Supplementary Tables 8). Those with onset of isolation had increased odds of living with mobility limitations and depression, with decreased likelihood of experiencing positive psychological wellbeing (life satisfaction, happiness, and QoL). Transitioning out of isolation was associated with reduced odds of depression and increased odds of enhanced happiness.

Supplementary Table 7. Concurrent Associations Between Chronicity of Loneliness and Subsequent Physical and Mental Health in Later Life

		Loneliness					
Outcomes		Transition out of loneliness	P	Onset of loneliness	P	Chronic loneliness	P
	Coef	Coef [95% CI]		Coef [95% CI]		Coef [95% CI]	
General health							
Chronic illnesses	OR	1.33 [0.96-1.86]	0.091	1.17 [0.85-1.61]	0.344	1.40 [1.09-1.80]	0.008
Chronic pain	OR	1.14 [0.81-1.60]	0.447	1.35 [1.00-1.83]	0.049	1.62 [1.28-2.07]	<0.001
Self-rated health	OR	0.75 [0.52-1.06]	0.104	0.67 [0.48-0.92]	0.013	0.62 [0.48-0.81]	<0.001
Functional capacity							
IADLs disability	OR	1.31 [0.86-1.99]	0.207	1.65 [1.07-2.56]	0.024	1.93 [1.43-2.61]	<0.001
ADLs disability	OR	1.17 [0.75-1.85]	0.486	1.27 [0.83-1.93]	0.266	2.23 [1.68-2.95]	<0.001
Mobility limitations	OR	1.46 [1.01-2.13]	0.046	1.48 [1.08-2.03]	0.014	1.71 [1.31-2.25]	<0.001
Gait speed	β	-0.08 [-0.20-0.04]	0.203	-0.17 [-0.31- -0.02]	0.022	-0.21 [-0.33- -0.10]	<0.001
Cognitive function							
Cognitive health	β	-0.05 [-0.16-0.05]	0.342	-0.08 [-0.18-0.03]	0.156	-0.04 [-0.13-0.05]	0.369
Mental wellbeing							
Depression	OR	1.54 [1.02-2.30]	0.038	3.47 [2.48-4.85]	<0.001	5.23 [3.96-6.89]	<0.001
Life satisfaction	OR	0.61 [0.42-0.89]	0.010	0.25 [0.18-0.34]	<0.001	0.19 [0.15-0.25]	<0.001
Happiness	OR	0.53 [0.38-0.73]	<0.001	0.28 [0.21-0.39]	<0.001	0.22 [0.17-0.28]	<0.001
Quality of life	β	-0.02 [-0.13-0.09]	0.740	-0.27 [-0.39- -0.16]	<0.001	-0.38 [-0.49- -0.26]	<0.001
Health behaviour							
Sleep problems	OR	1.29 [0.93-1.78]	0.133	1.73 [1.28-2.35]	<0.001	2.03 [1.58-2.60]	<0.001
Sedentary behaviour	OR	1.12 [0.78-1.62]	0.527	1.80 [1.26-2.57]	0.001	1.51 [1.13-2.01]	0.006
Smoking	OR	1.45 [0.74-2.85]	0.277	1.35 [0.79-2.32]	0.274	1.02 [0.61-1.70]	0.951
Alcohol consumption	OR	0.95 [0.68-1.32]	0.741	0.94 [0.70-1.27]	0.701	0.81 [0.63-1.06]	0.121
Leisure engagement	β	-0.01 [-0.12-0.09]	0.809	-0.04 [-0.13-0.05]	0.341	-0.12 [-0.19- -0.04]	0.002

Note. The reference category was no loneliness. Results were weighted and based on 50 imputed datasets. All models adjusted for age, sex, ethnicity, education, employment, marital status, total net non-pension wealth, and the corresponding pre-baseline outcome measured at wave 6. Models examining cognitive health were adjusted for cognitive scores at wave 7 as potential confounders. Bold text indicates $p < 0.05$. OR: odds ratio from logistic regression model (ordered logistic regression model for alcohol consumption). β : standardized coefficient from linear regression model. All tests were two-sided. No adjustments were made for multiple comparisons.

Supplementary Table 8. Concurrent Associations Between Chronicity of Isolation and Subsequent Physical and Mental Health in Later Life

		Social isolation					
Outcomes		Transition out of isolation		Onset of isolation		Chronic isolation	
	Coef	Coef [95% CI]	P	Coef [95% CI]	P	Coef [95% CI]	P
General health							
Chronic illnesses	OR	1.08 [0.90-1.30]	0.385	0.85 [0.58-1.23]	0.380	1.17 [0.95-1.44]	0.130
Chronic pain	OR	1.02 [0.85-1.22]	0.817	1.12 [0.76-1.64]	0.572	1.06 [0.86-1.29]	0.604
Self-rated health	OR	1.17 [0.97-1.40]	0.094	0.71 [0.46-1.08]	0.108	0.98 [0.79-1.21]	0.849
Functional capacity							
IADLs disability	OR	1.12 [0.87-1.45]	0.375	1.62 [0.95-2.77]	0.074	1.23 [0.93-1.64]	0.143
ADLs disability	OR	0.93 [0.73-1.20]	0.594	1.26 [0.73-2.17]	0.407	1.21 [0.92-1.59]	0.180
Mobility limitations	OR	0.87 [0.73-1.04]	0.134	1.55 [1.03-2.31]	0.034	0.88 [0.71-1.10]	0.266
Gait speed	β	0.003 [-0.06-0.07]	0.917	-0.07 [-0.22-0.09]	0.414	-0.07 [-0.15-0.02]	0.136
Cognitive function							
Cognitive health	β	0.02 [-0.04-0.08]	0.474	0.02 [-0.10-0.14]	0.749	-0.004 [-0.07-0.06]	0.909
Mental wellbeing							
Depression	OR	0.68 [0.53-0.88]	0.003	1.88 [1.28-2.75]	0.001	0.96 [0.74-1.25]	0.788
Life satisfaction	OR	1.19 [0.93-1.52]	0.175	0.38 [0.25-0.58]	<0.001	0.57 [0.45-0.73]	<0.001
Happiness	OR	1.42 [1.15-1.75]	0.001	0.60 [0.41-0.87]	0.007	0.88 [0.70-1.10]	0.259
Quality of life	β	0.03 [-0.04-0.09]	0.392	-0.22 [-0.37- -0.07]	0.003	-0.19 [-0.27- -0.11]	<0.001
Health behaviour							
Sleep problems	OR	0.92 [0.77-1.11]	0.393	1.21 [0.83-1.77]	0.310	0.96 [0.78-1.18]	0.694
Sedentary behaviour	OR	0.92 [0.74-1.16]	0.490	1.06 [0.67-1.66]	0.807	0.92 [0.71-1.18]	0.500
Smoking	OR	1.00 [0.72-1.38]	0.979	1.17 [0.48-2.80]	0.733	1.08 [0.71-1.63]	0.716
Alcohol consumption	OR	0.99 [0.85-1.16]	0.906	1.08 [0.76-1.54]	0.661	0.91 [0.75-1.11]	0.353

Note. The reference category was no isolation. Results were weighted and based on 50 imputed datasets. All models adjusted for age, sex, ethnicity, education, employment, total net non-pension wealth, and the corresponding pre-baseline outcome measured at wave 6. Models examining cognitive health were adjusted for cognitive scores at wave 7 as potential confounders. Bold text indicates $p < 0.05$. OR: odds ratio from logistic regression model (ordered logistic regression model for alcohol consumption). β : standardized coefficient from linear regression model. All tests were two-sided. No adjustments were made for multiple comparisons.